

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs



FIG.4

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs

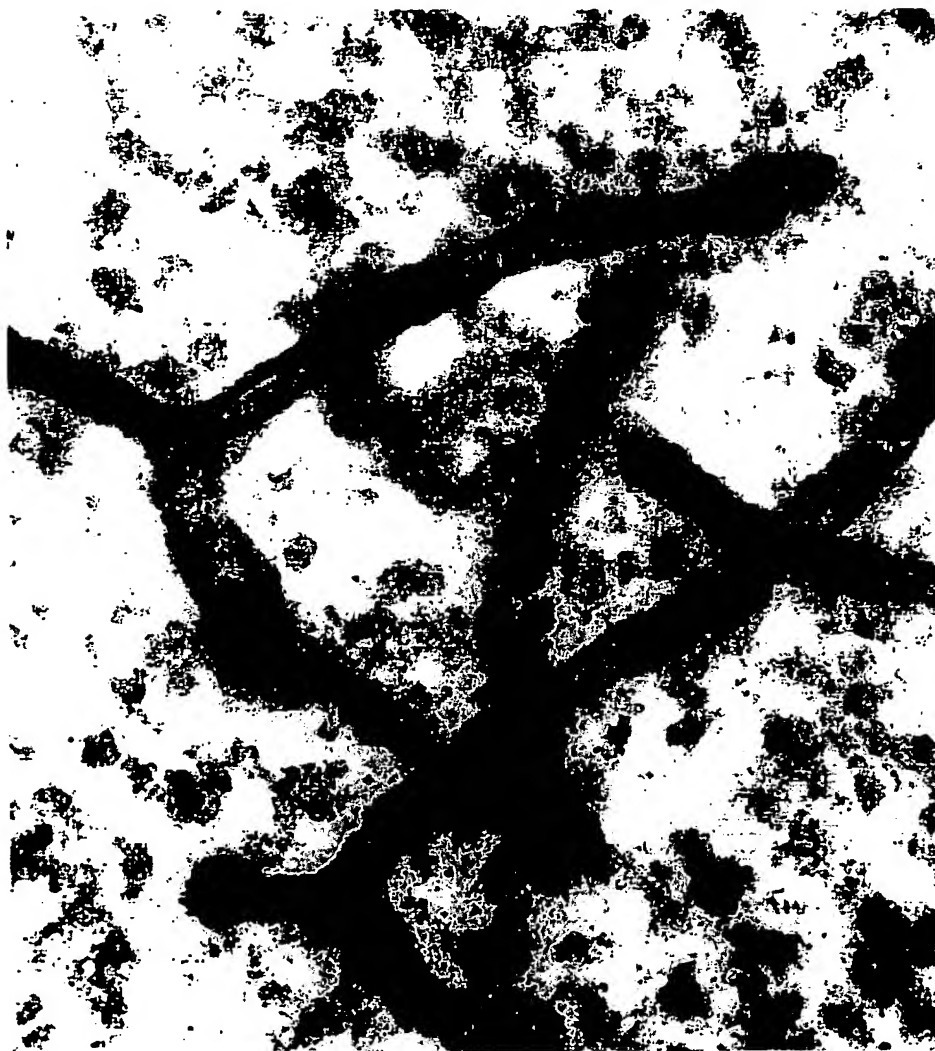


FIG.2

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs



FIG.3

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs



FIG.1

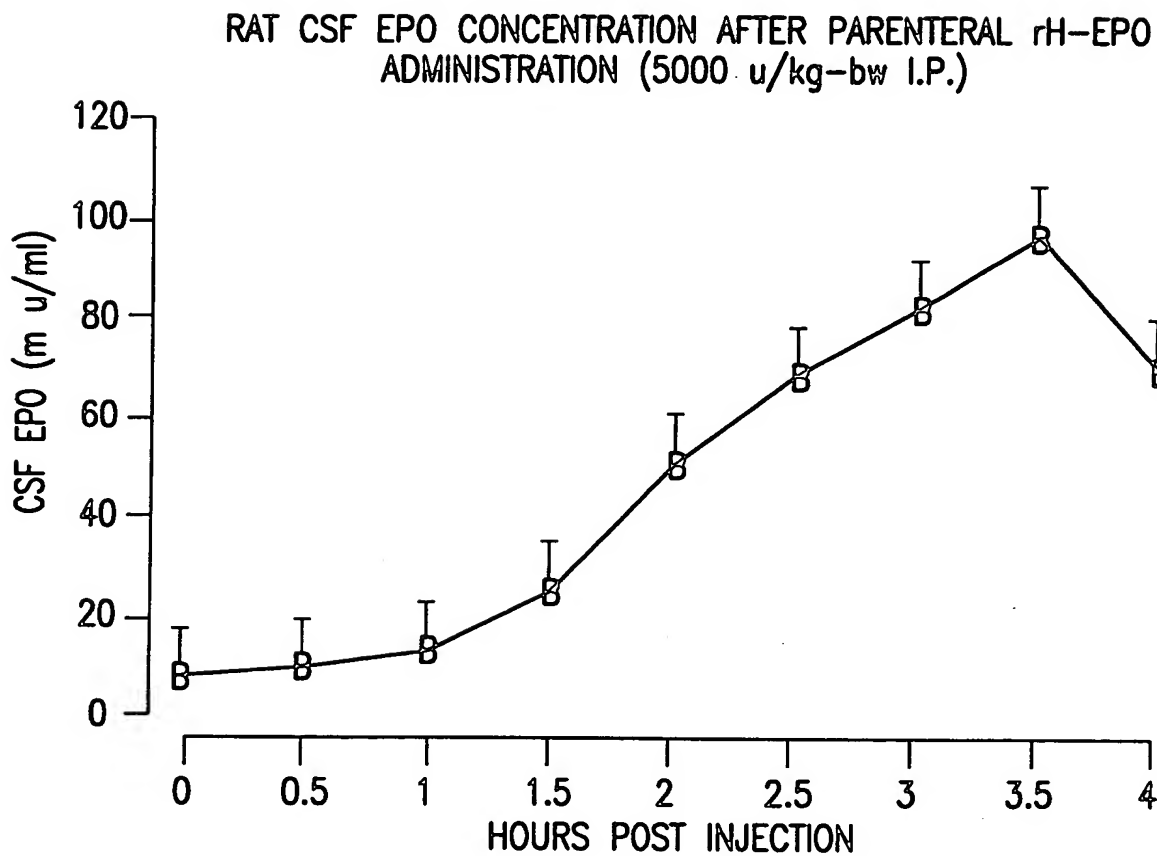


FIG.5

SK-N-SH NEUROBLASTOMA CELLS  
NEUROPROTECTION ASSAY (AGAINST ROTENONE)

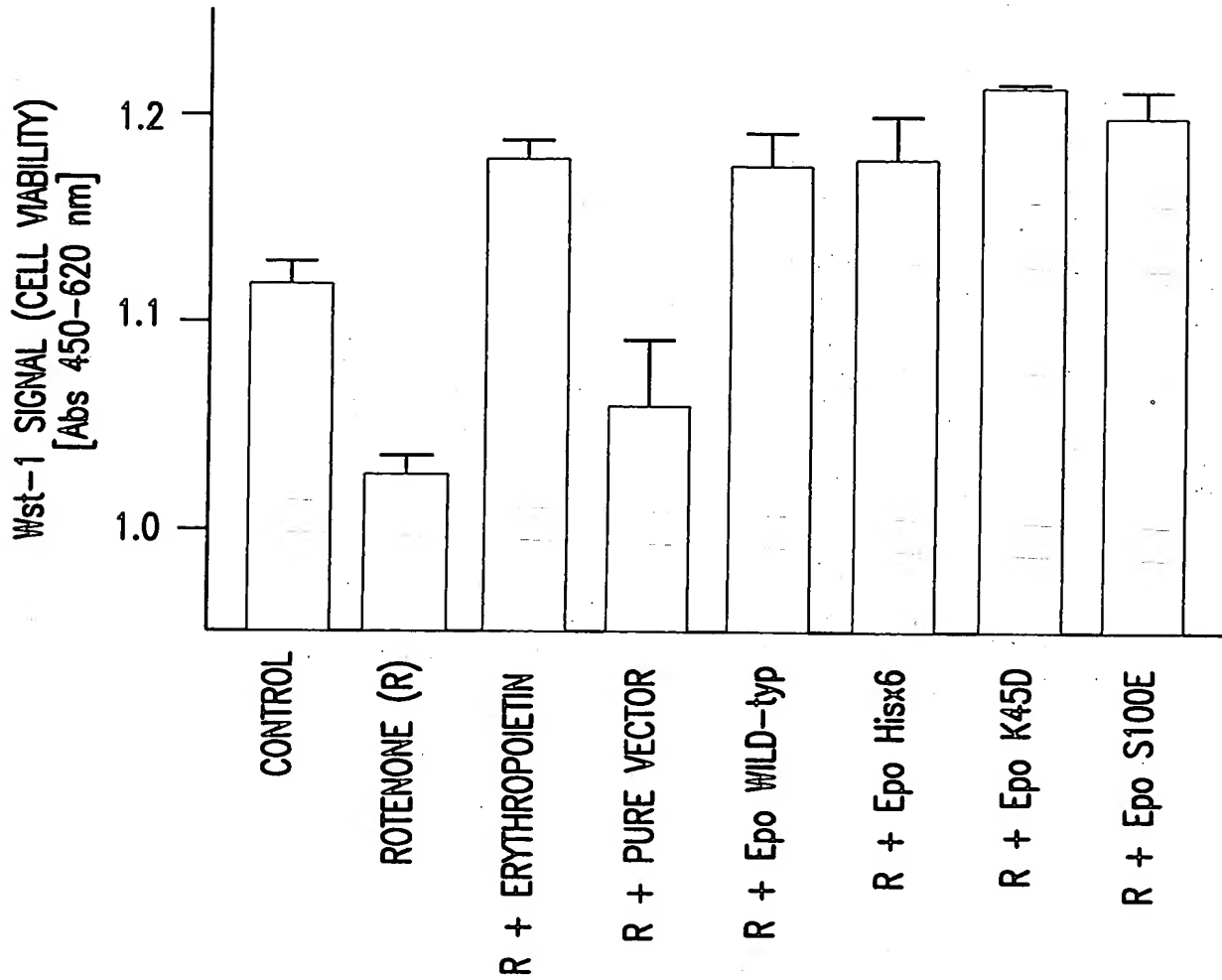


FIG. 6A

Inventor(s): Nielsen et al.

**Title:** Recombinant tissue protective cytokines and encoding nucleic acids thereof for protection, restoration, and enhancement of responsive cells, tissues, and organs

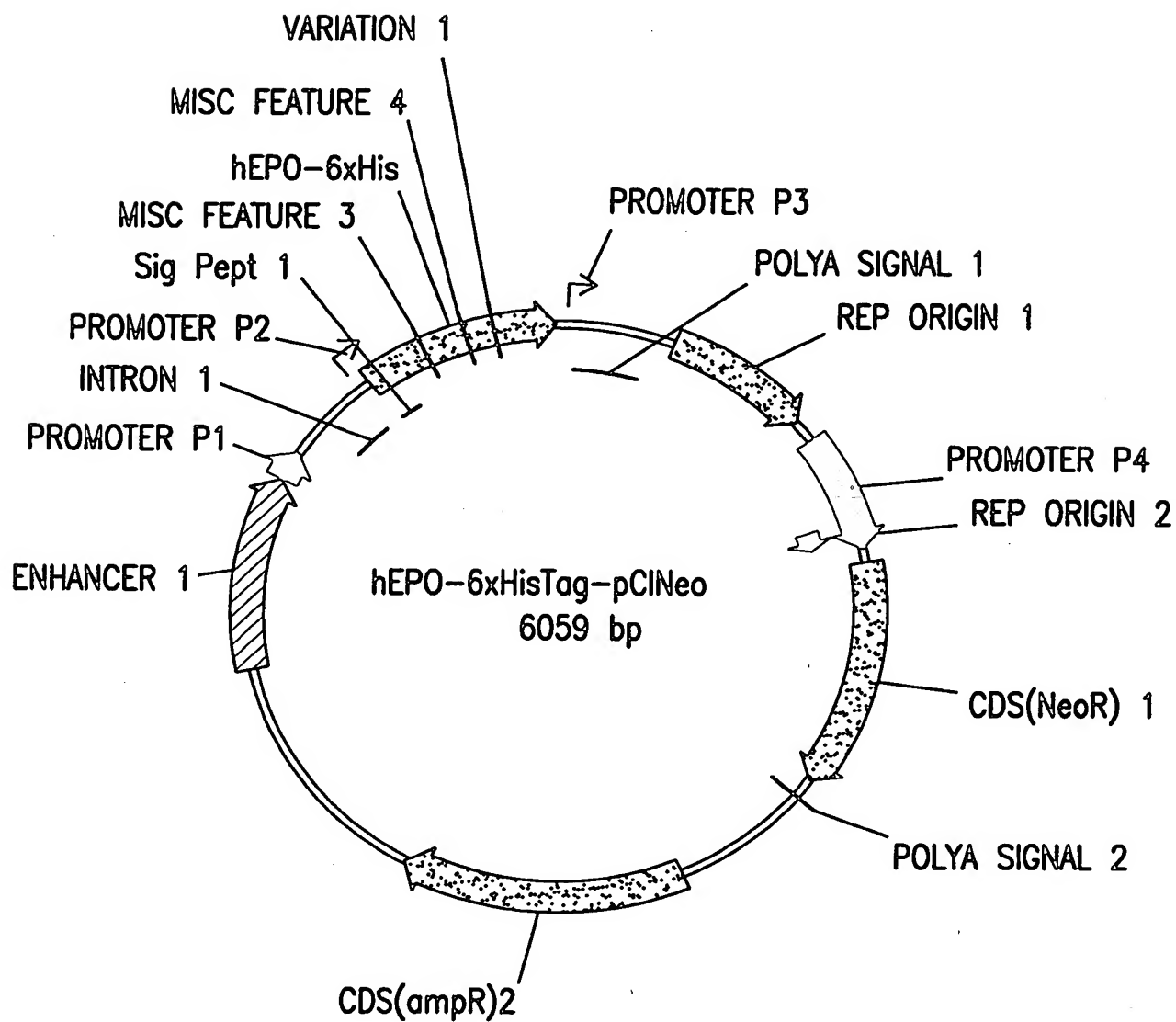


FIG. 6B



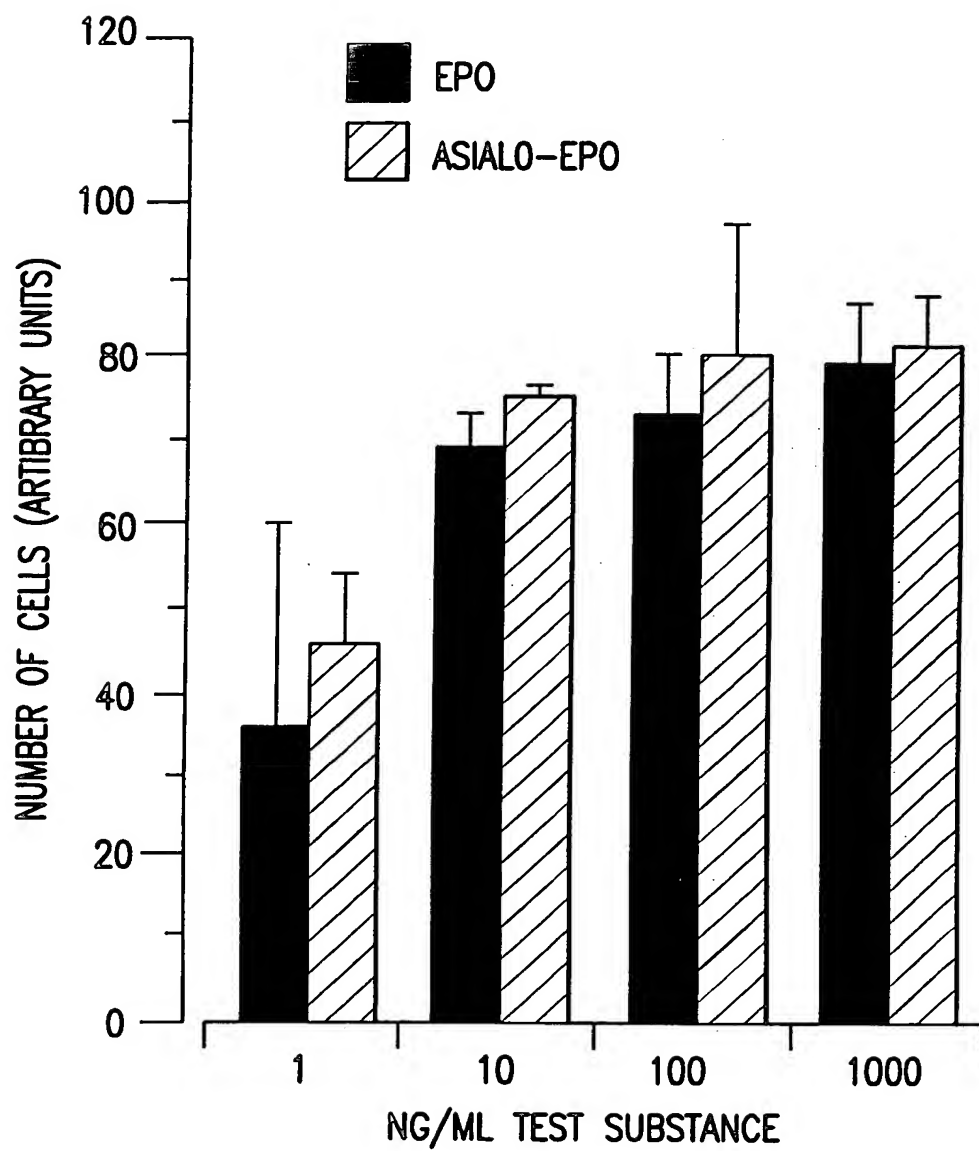


FIG. 7

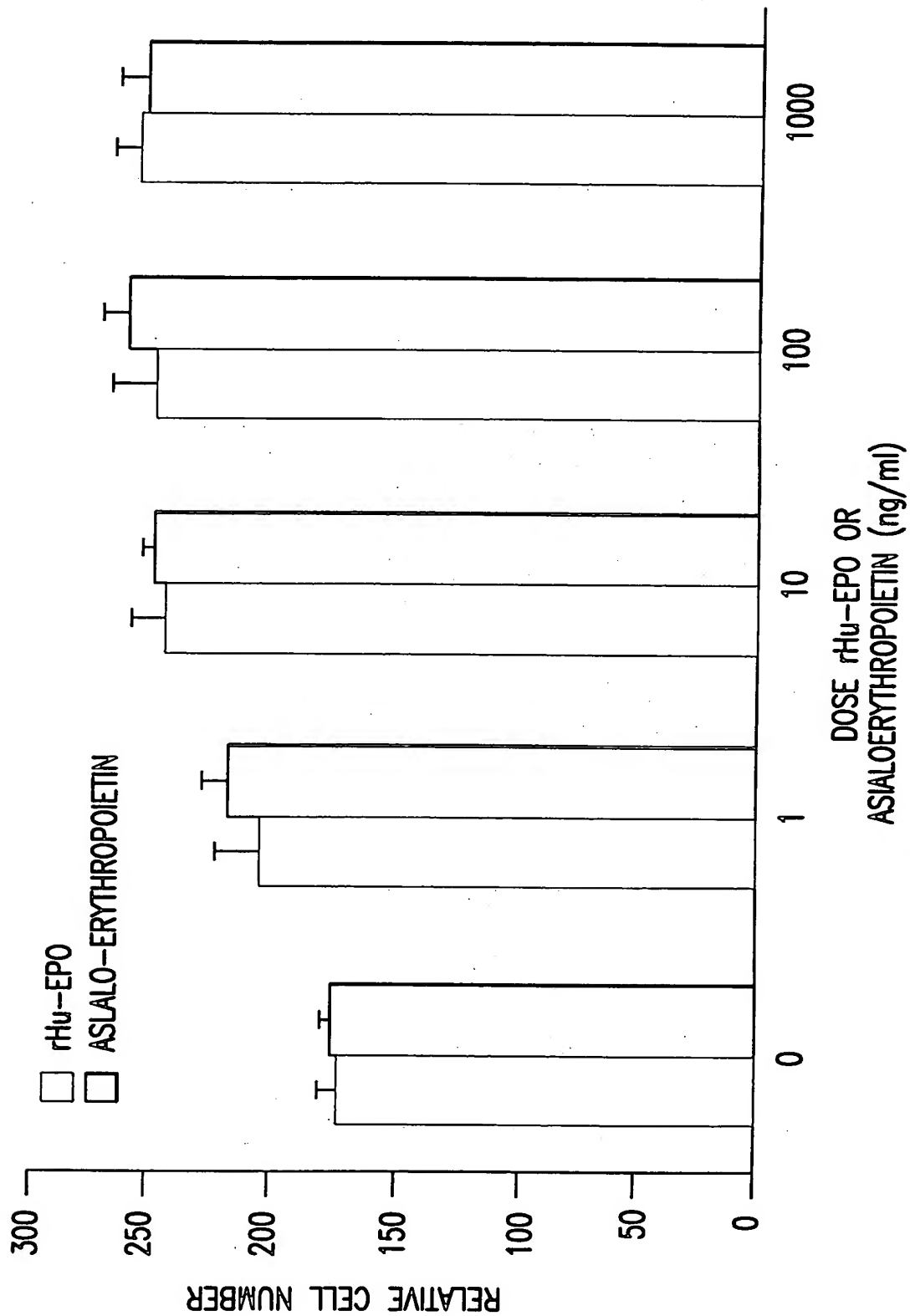


FIG.8

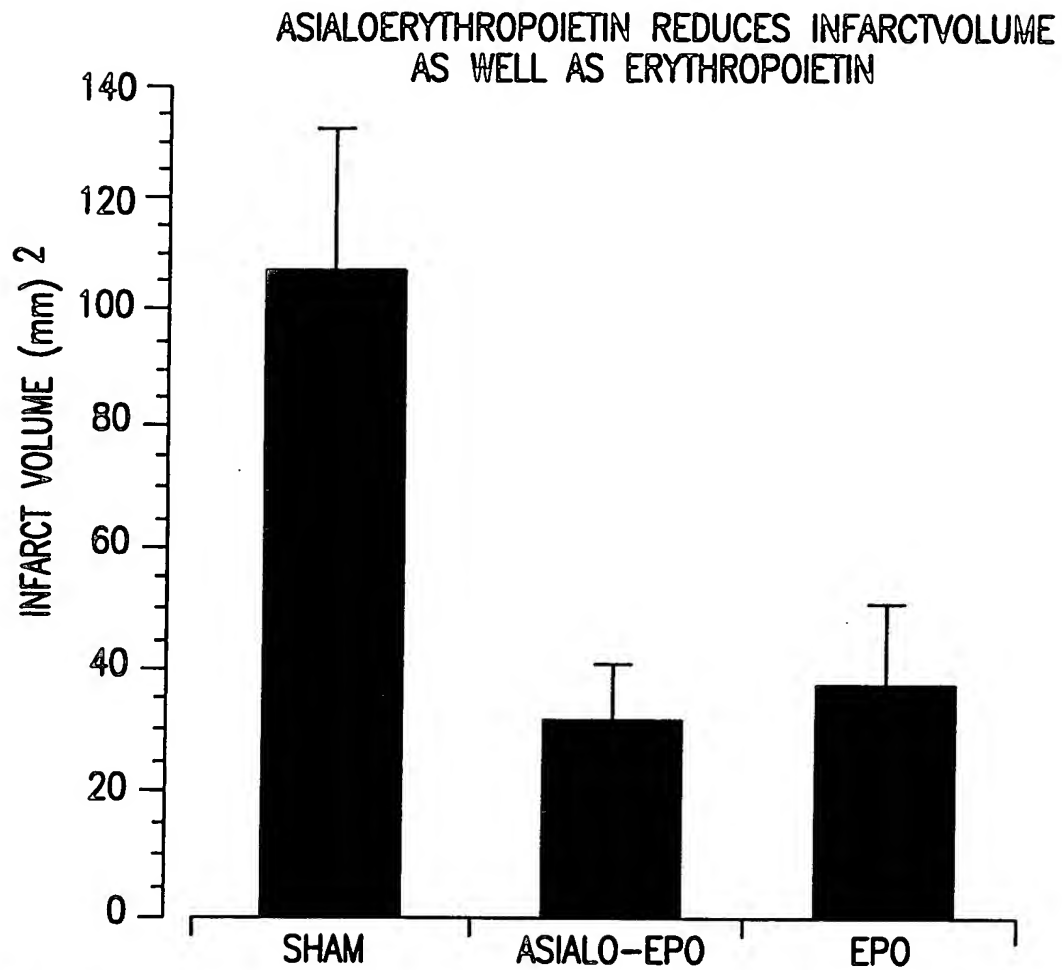
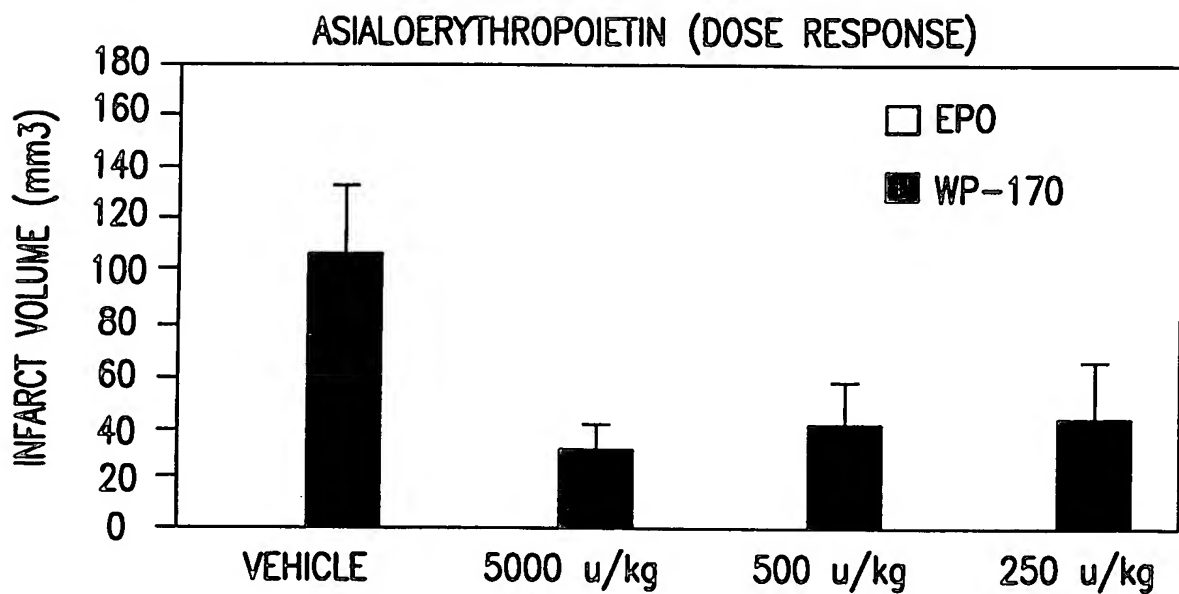


FIG. 9



n FOR EACH GROUP IS  
GREATER THAN OR EQUAL TO 4

FIG. 10

PROTECTION OF P19 CELLS FROM SERUM  
DEPRIVATION BY IODO-EPO

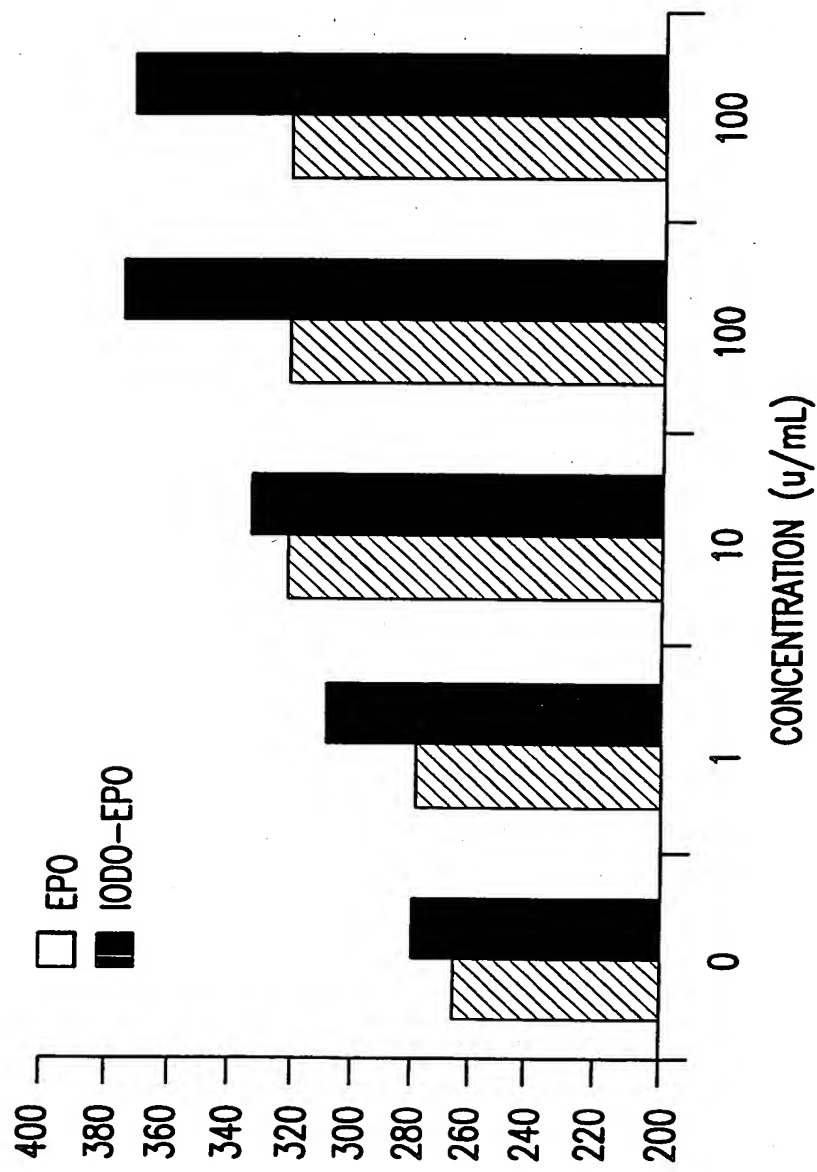


FIG.11

BIOTINYLATED-EPO AND ASIALO-EPO RETAIN  
ACTIVITY IN P19 ASSAY

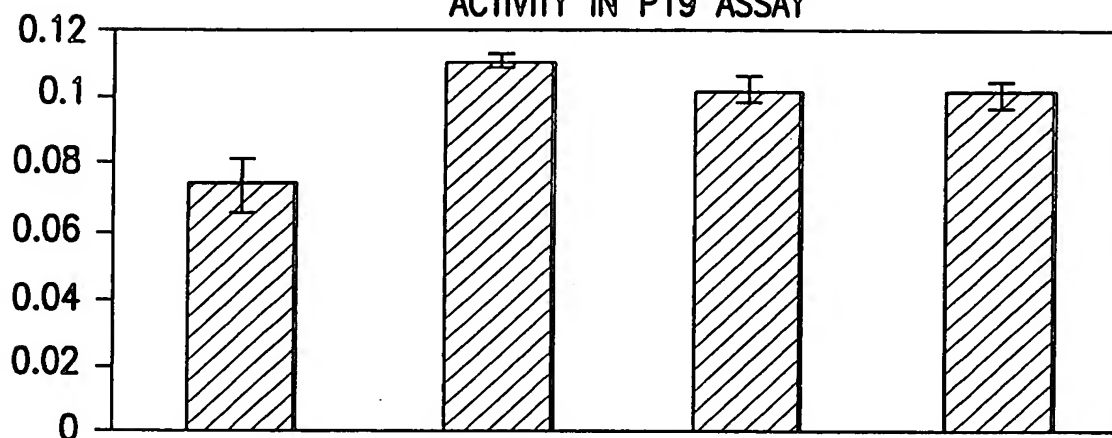


FIG.12

SURVIVAL OF P19 CELLS AFTER SERUM WITHDRAWAL

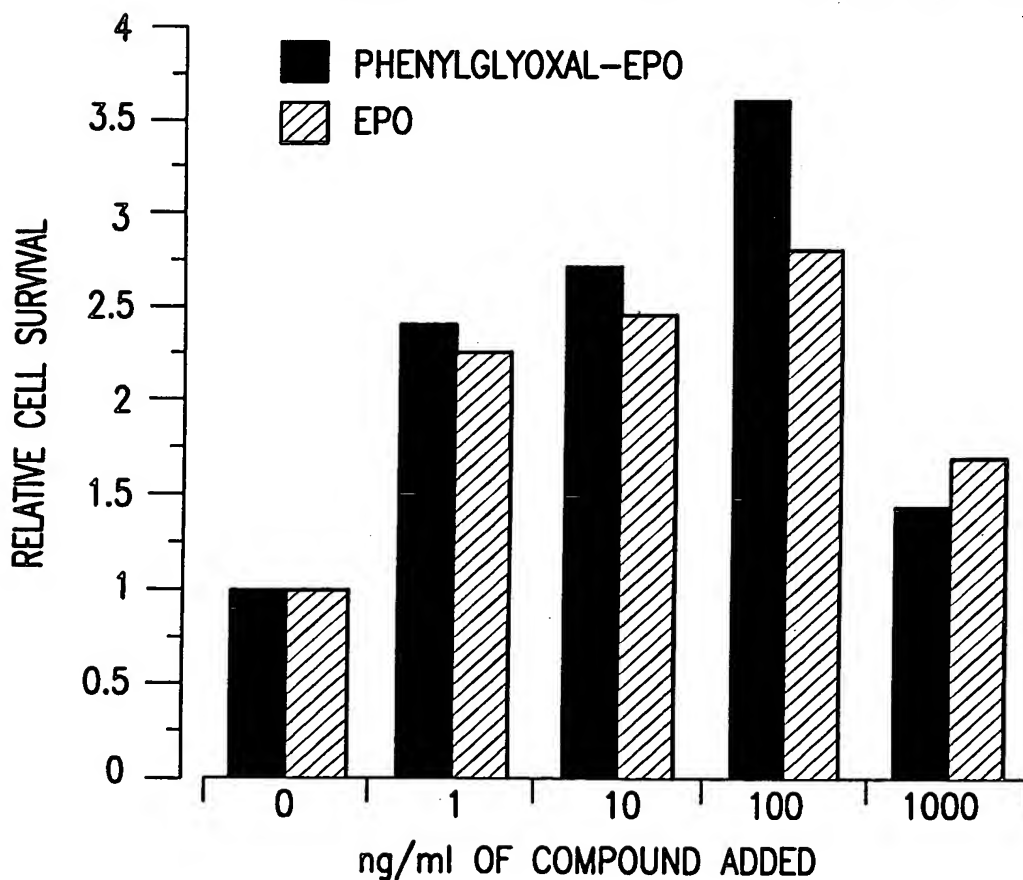


FIG.13

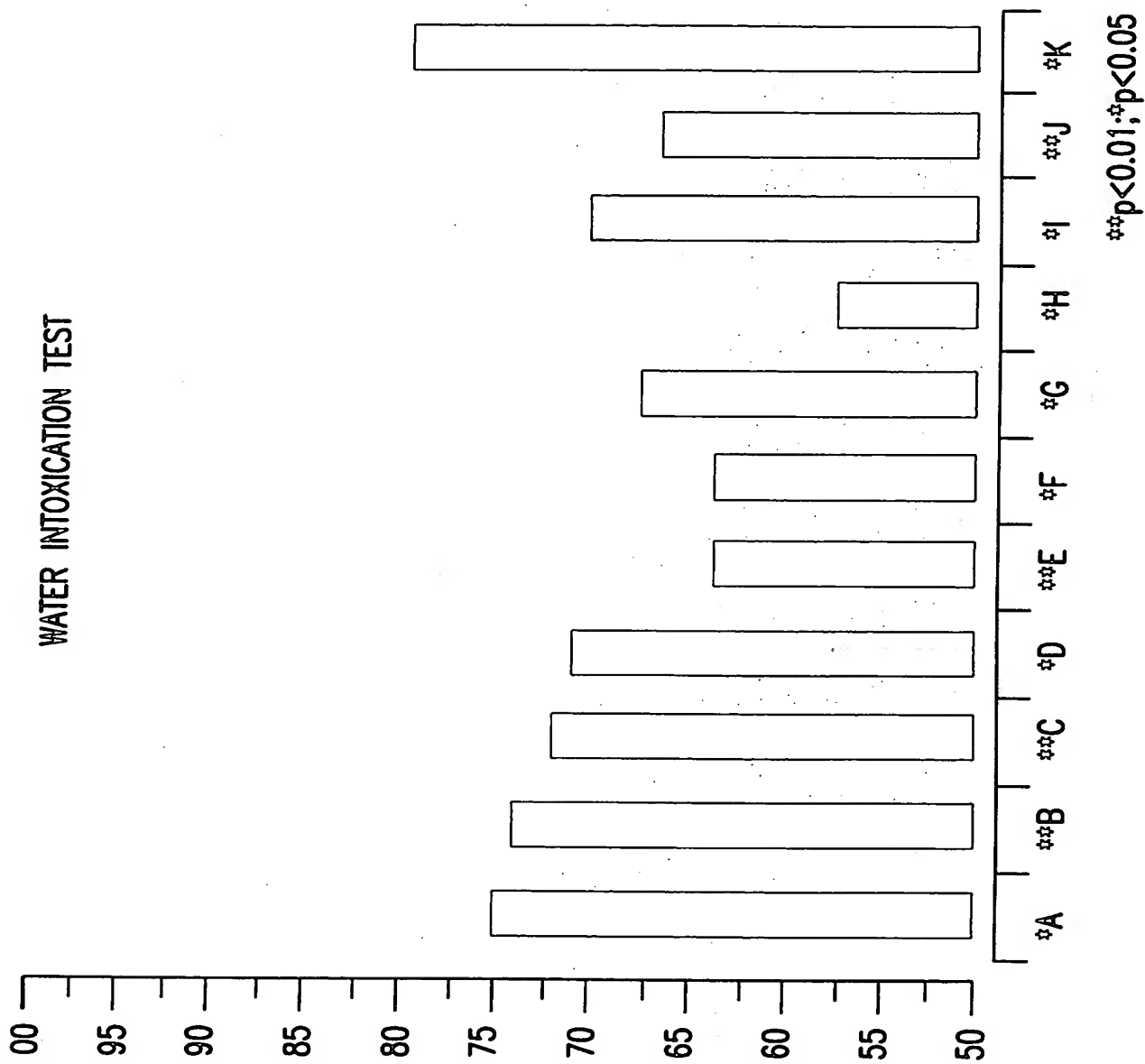


FIG. 14

### ERYTHROPOIETIN IMPROVES CARDIAC FUNCTION IN A HEART ISOLATED FOR TRANSPLANTATION

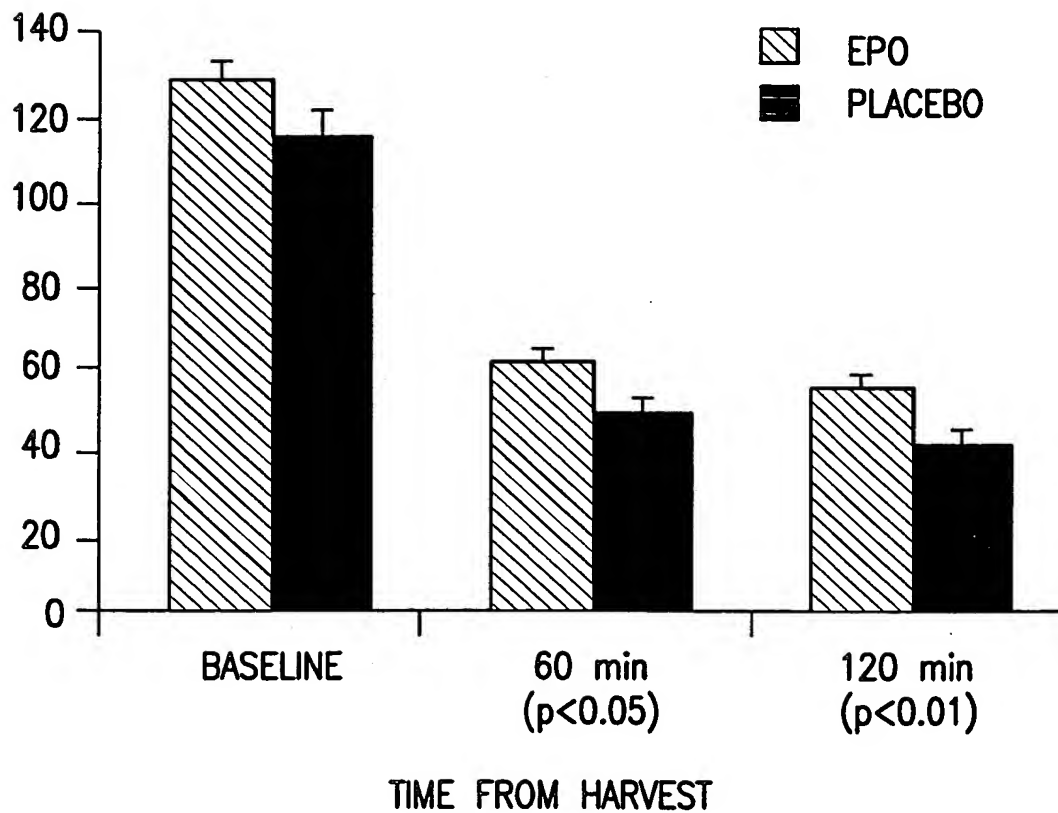


FIG. 15

RAT HEART 7 DAYS AFTER 30 MINUTES OF ISCHEMIA

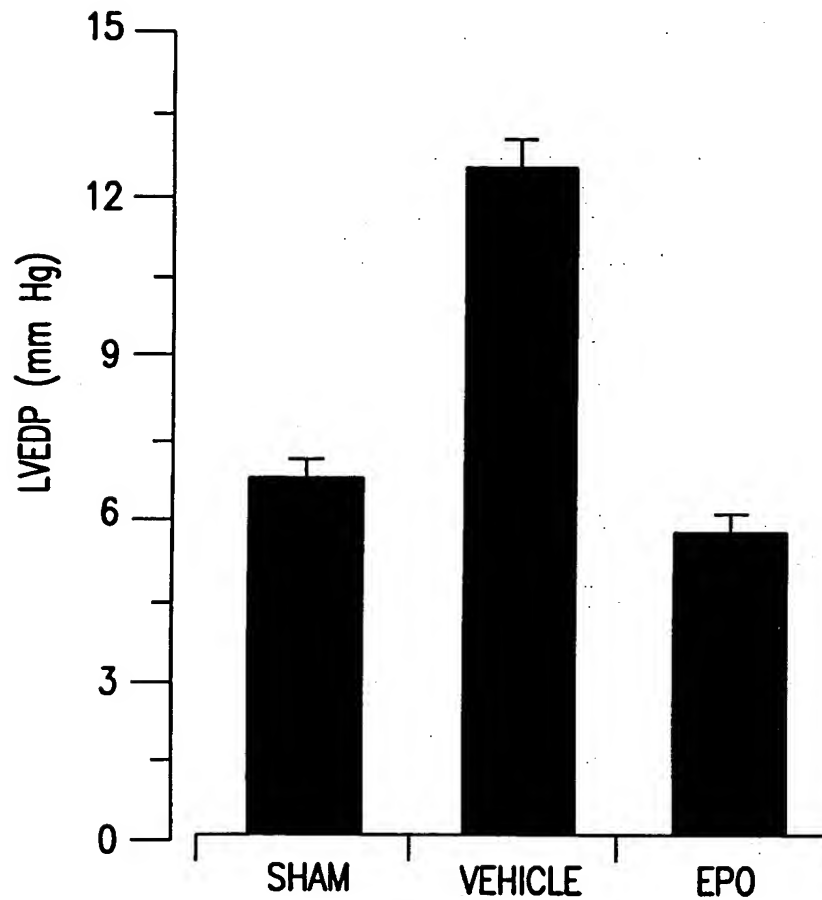


FIG. 16



ELECTRORETINOGRAMS  
FROM RATS SUBJECTED  
TO 60 MINUTES OF  
ISCHEMIA

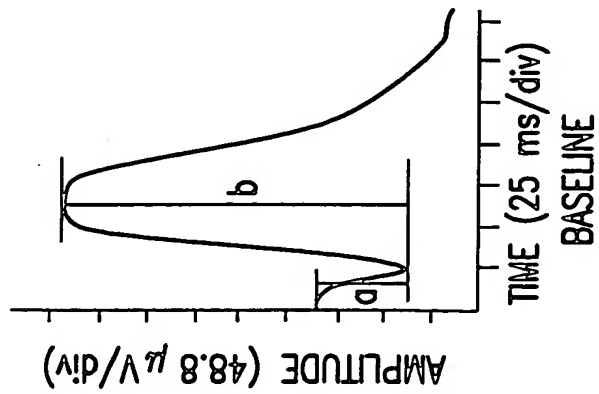


FIG.17A

ELECTRORETINOGRAMS  
FROM RATS SUBJECTED  
TO 60 MINUTES OF  
ISCHEMIA

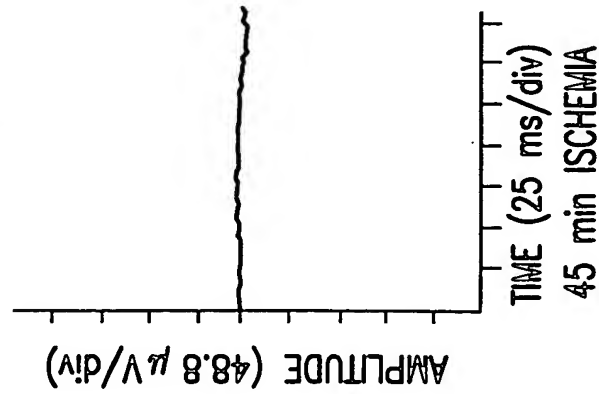


FIG.17B

ELECTRORETINOGRAMS  
FROM RATS SUBJECTED  
TO 60 MINUTES OF  
ISCHEMIA

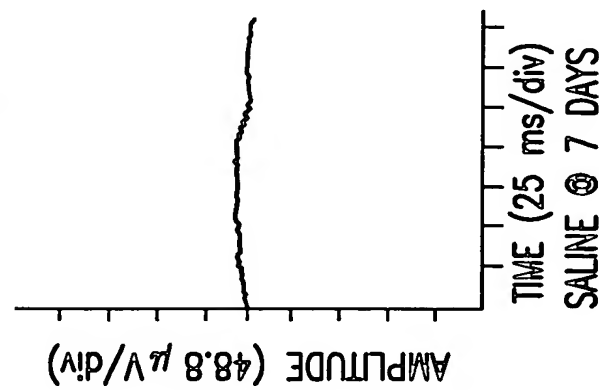


FIG.17C

ELECTRORETINOGRAMS  
FROM RATS SUBJECTED  
TO 60 MINUTES OF  
ISCHEMIA

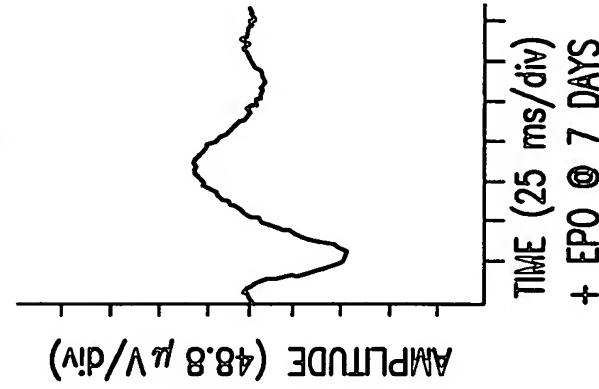


FIG.17D

### RETINOGRAM AMPLITUDE AFTER 60 min. ISCHEMIA

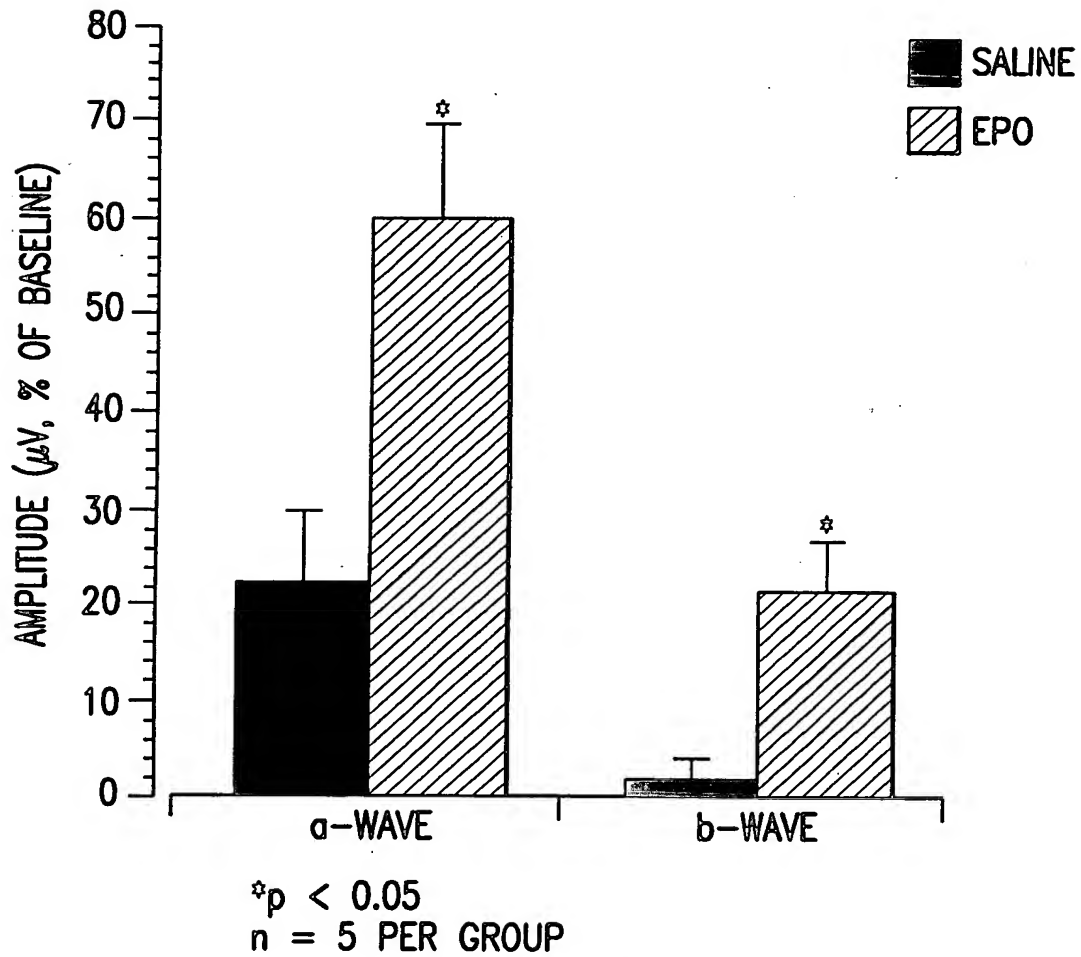


FIG.18

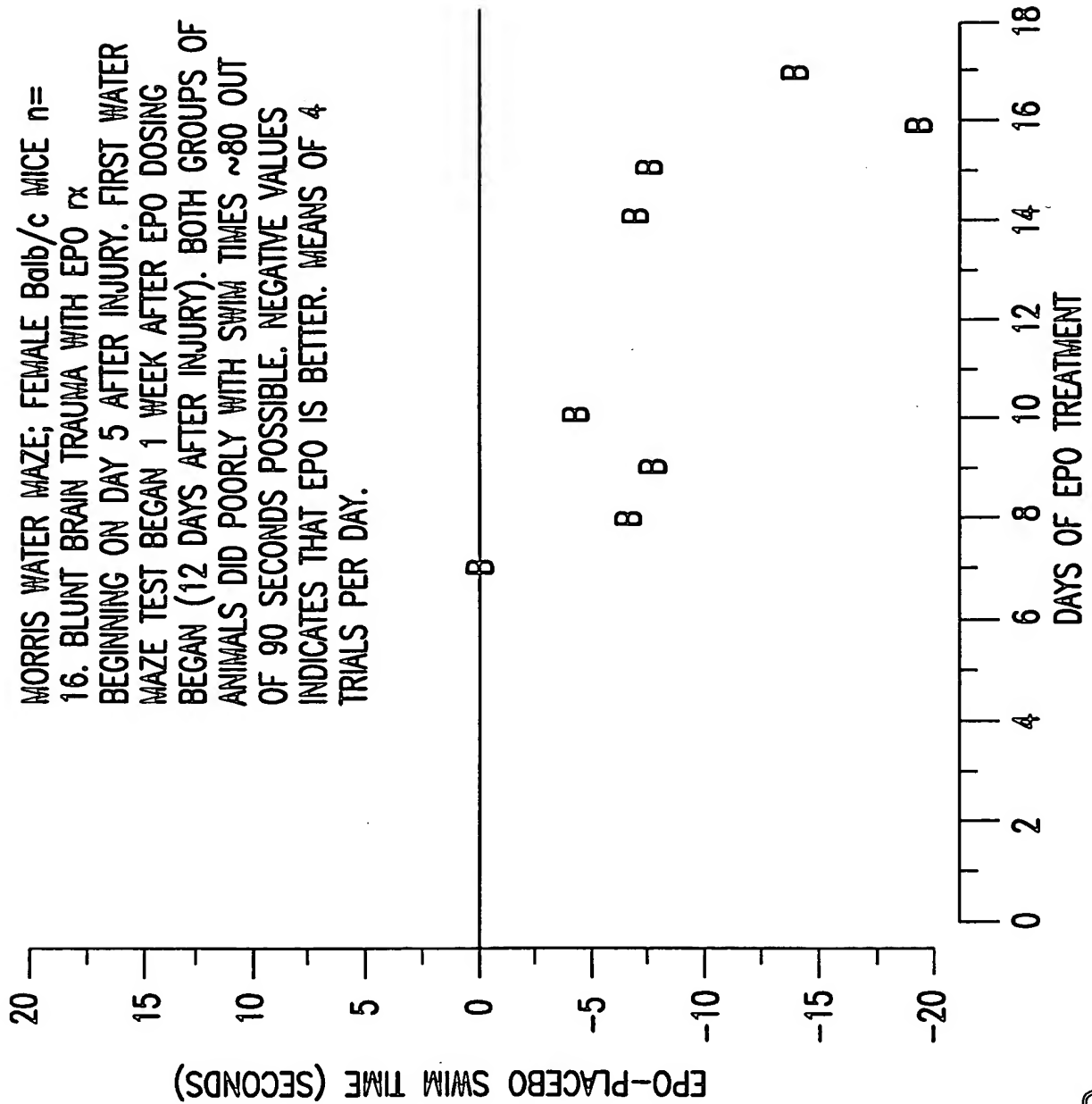


FIG. 19

Title: Recombinant tissue protective cytokines and encoding nucleic acids thereof for protection, restoration, and enhancement of responsive cells, tissues, and organs

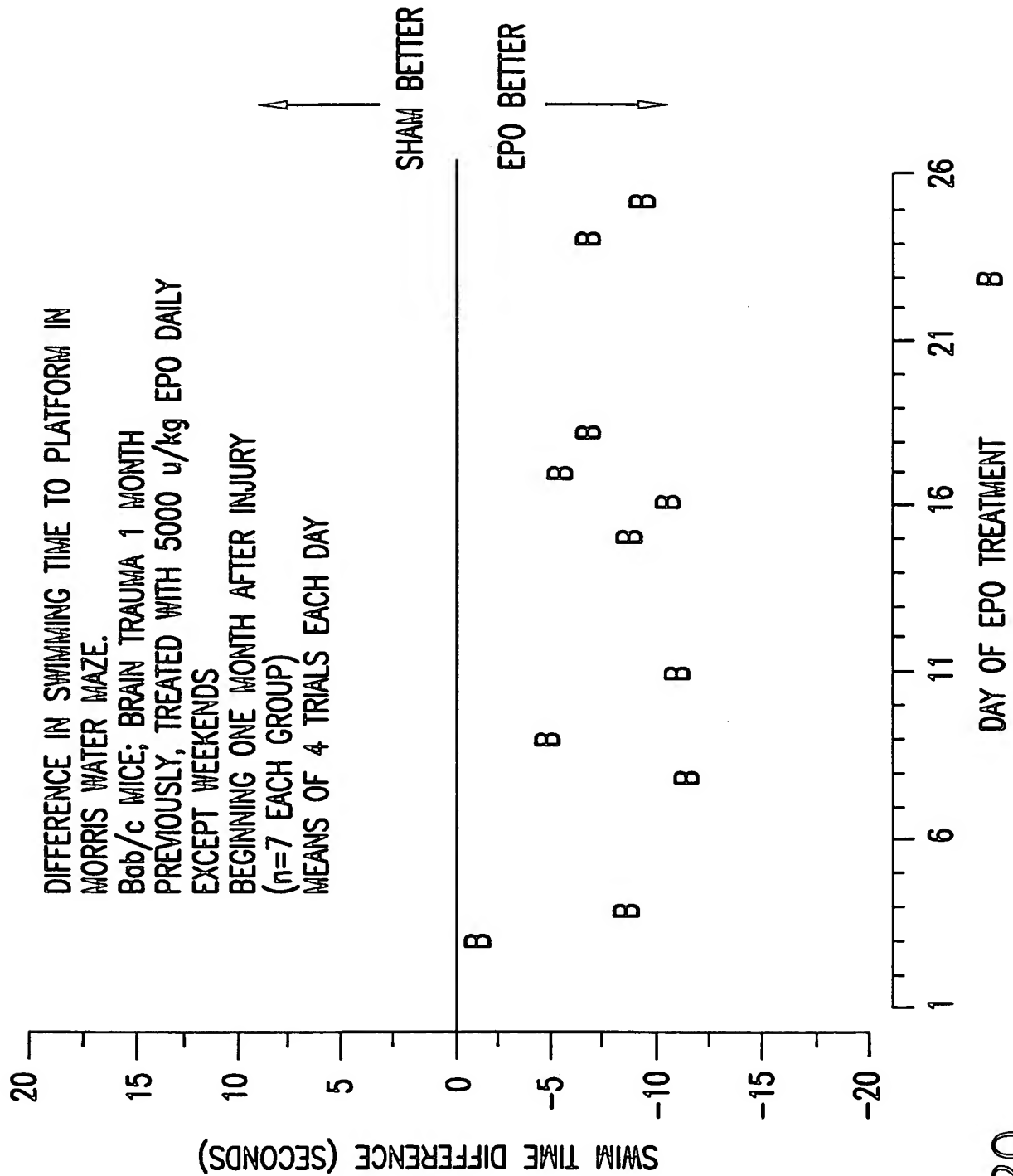
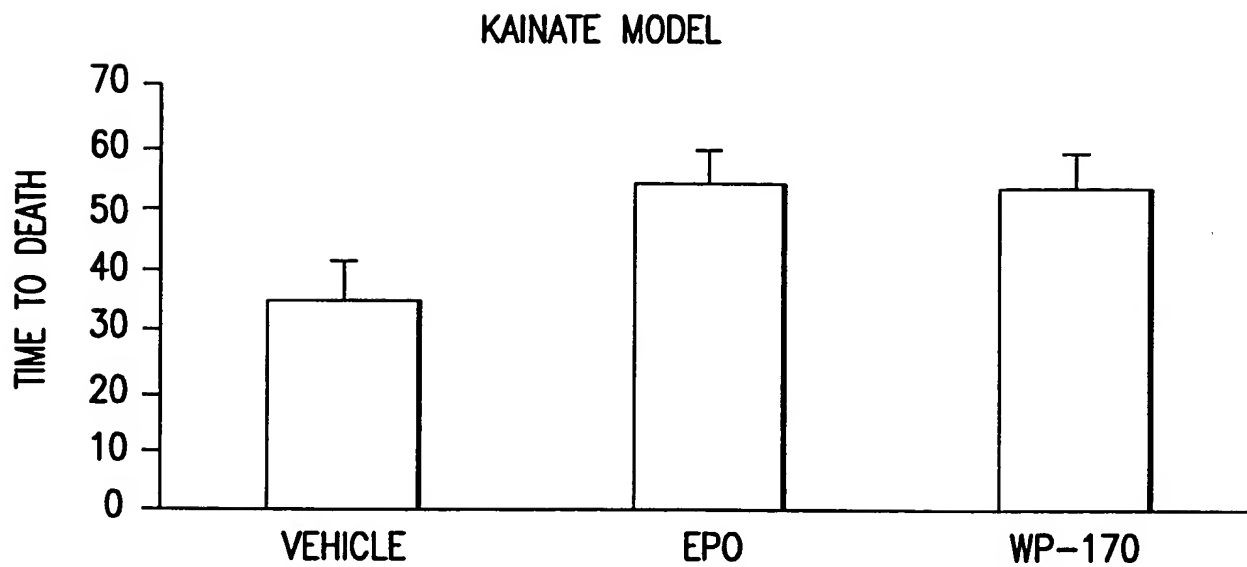


FIG. 20



**FIG.21**

### RAT SPINAL CORD COMPRESSION MODEL

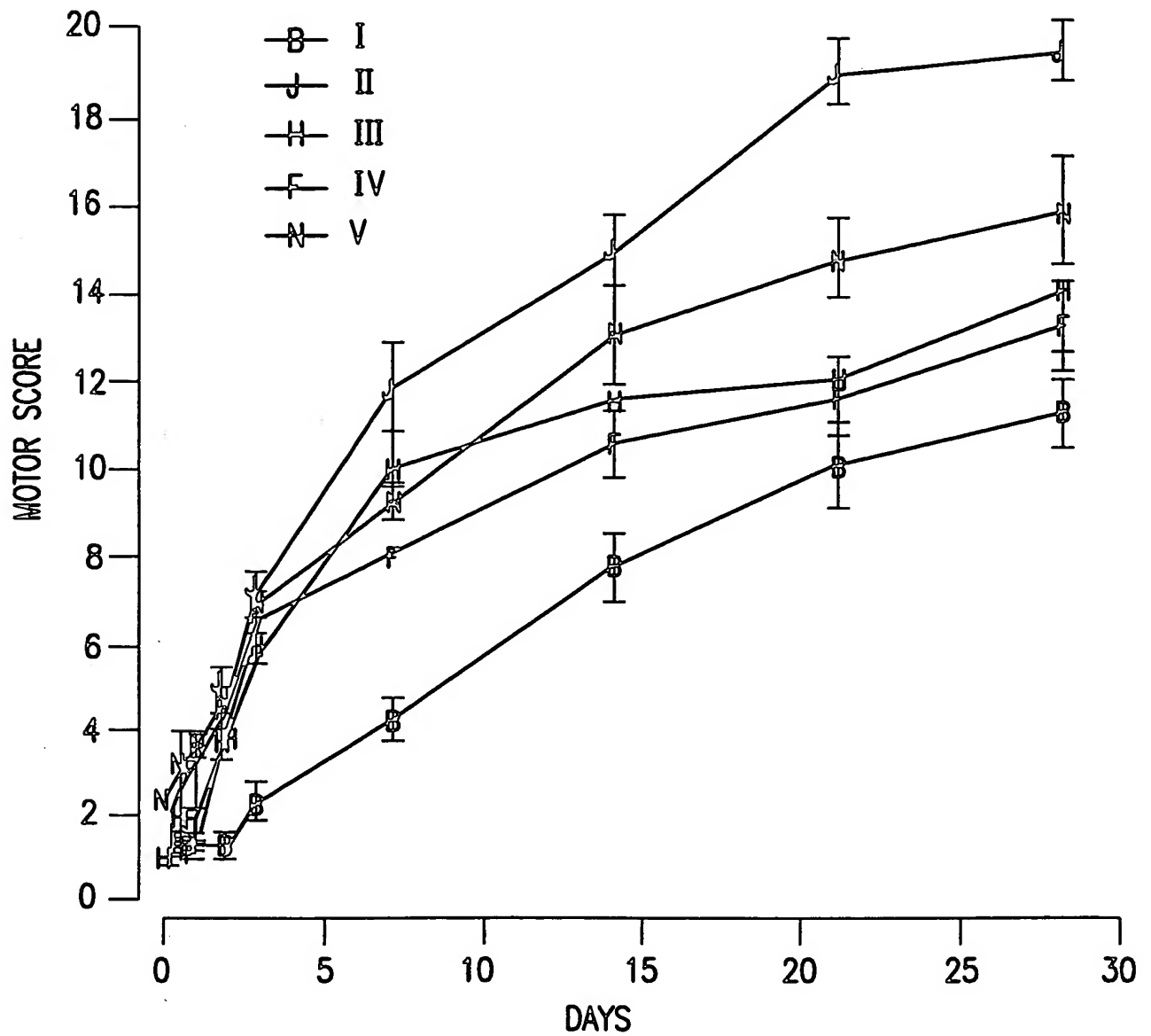


FIG.22

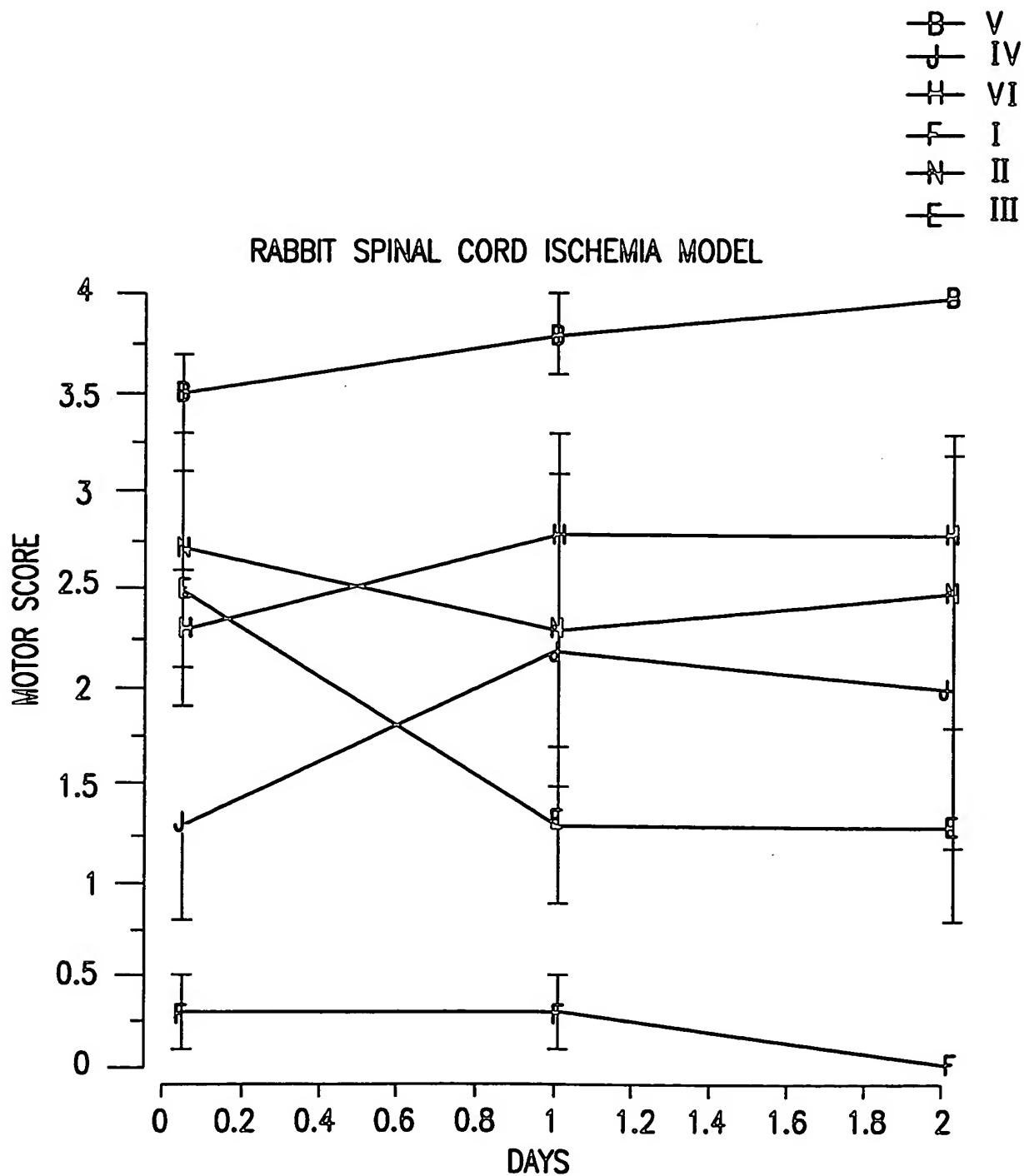


FIG.23

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs

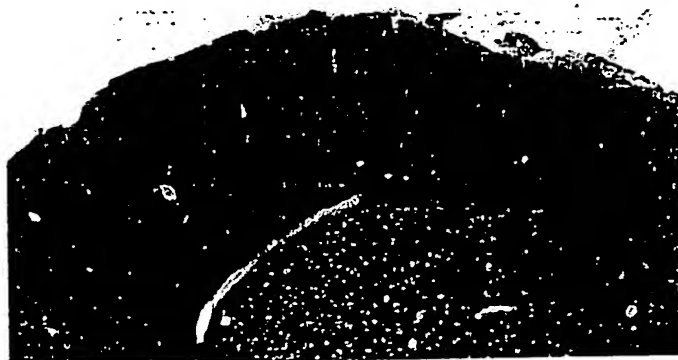


FIG.24A



FIG.24B



FIG.24C



Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs



FIG.25A

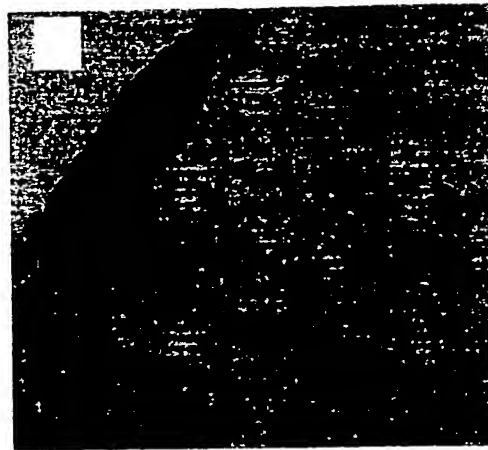
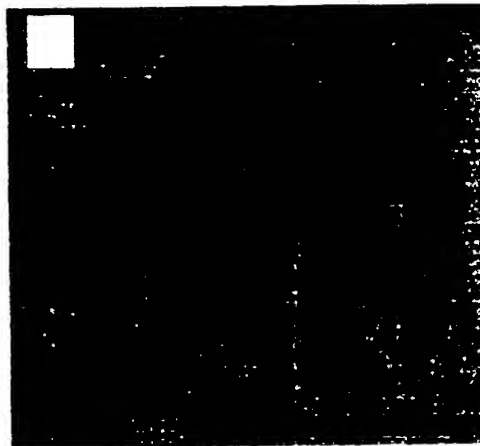


FIG.25B



Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs

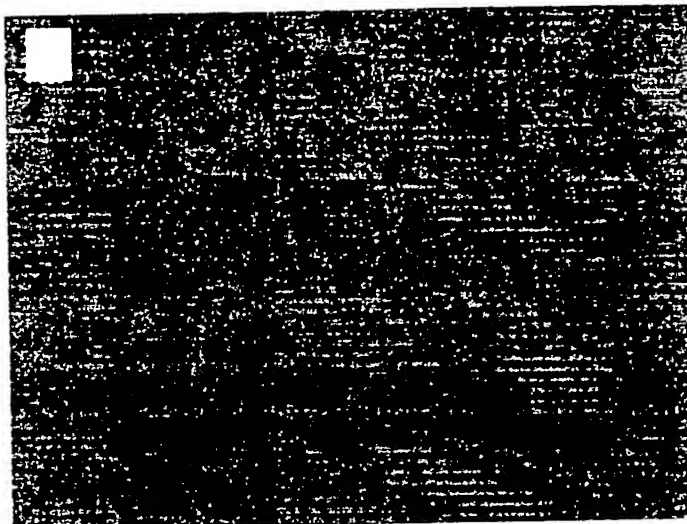


FIG. 26A



FIG. 26B

Docket No.: 10165-022-999

Serial No.: 10/612,665

Inventor(s): Nielsen et al.

Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs

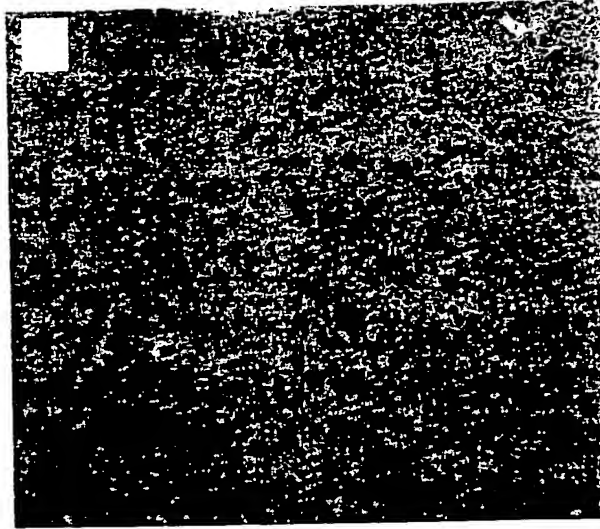


FIG.27A



FIG.27B

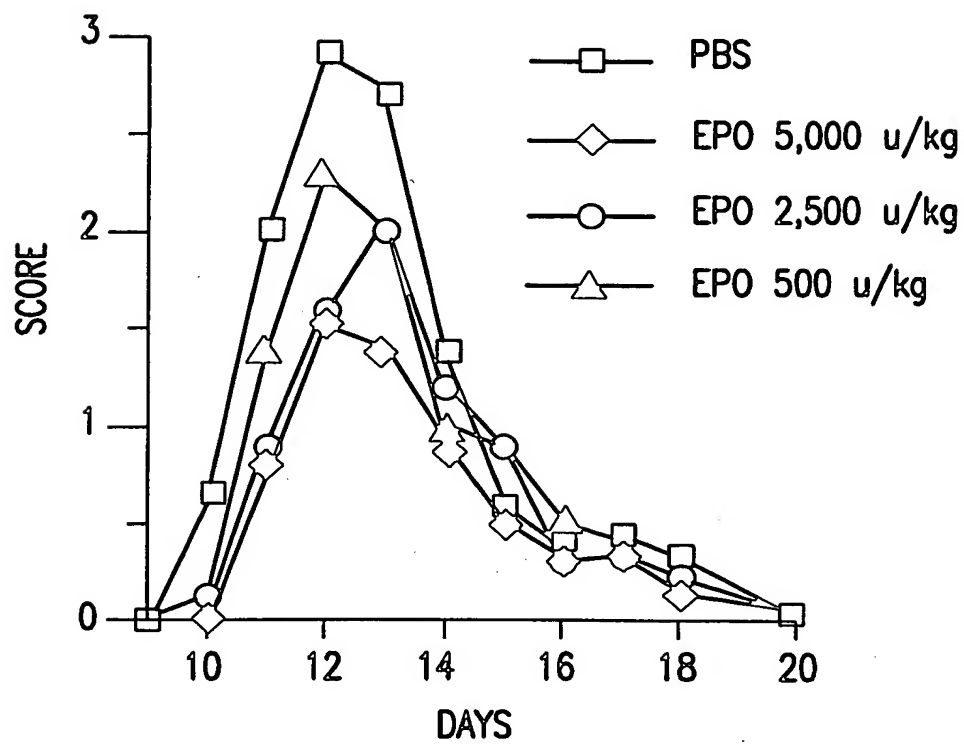


FIG.28

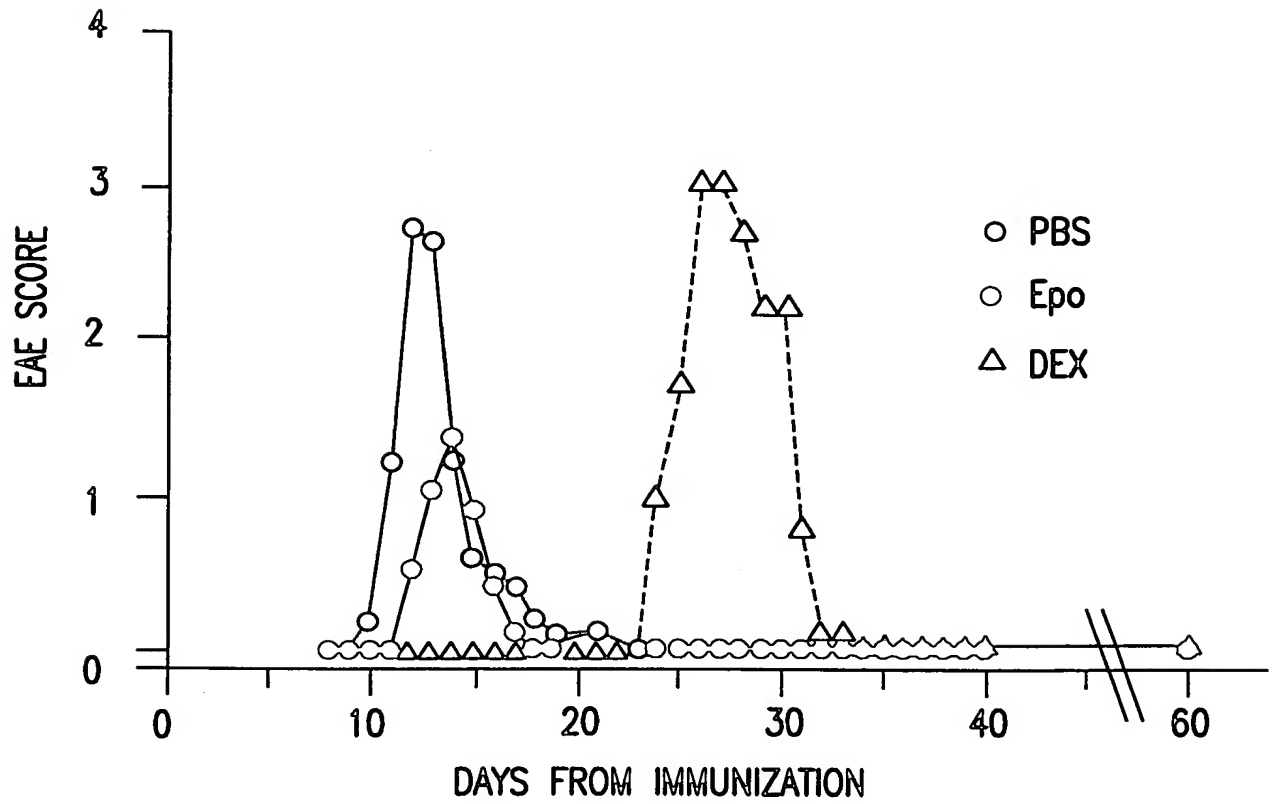


FIG. 29

Title: Recombinant tissue protective cytokines and encoding nucleic acids thereof for protection, restoration, and enhancement of responsive cells, tissues, and organs

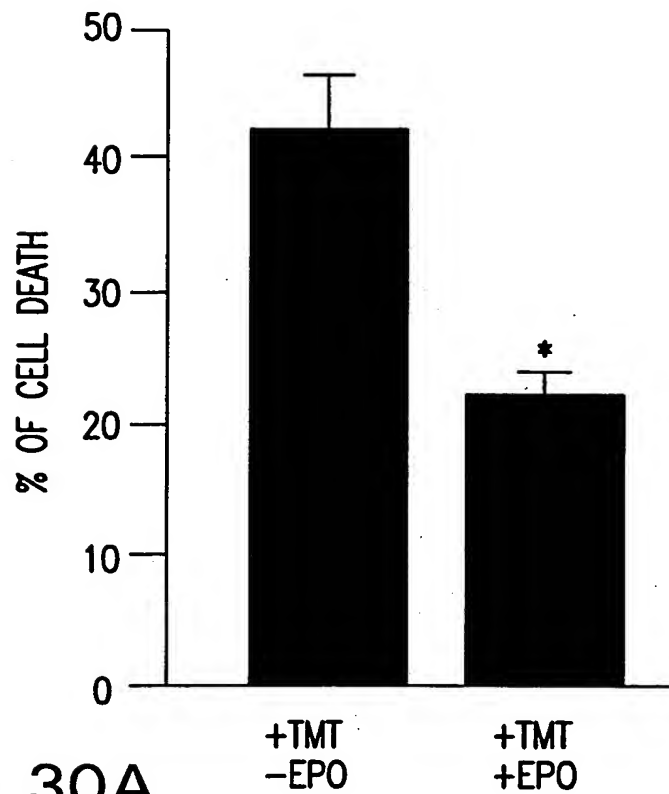


FIG.30A

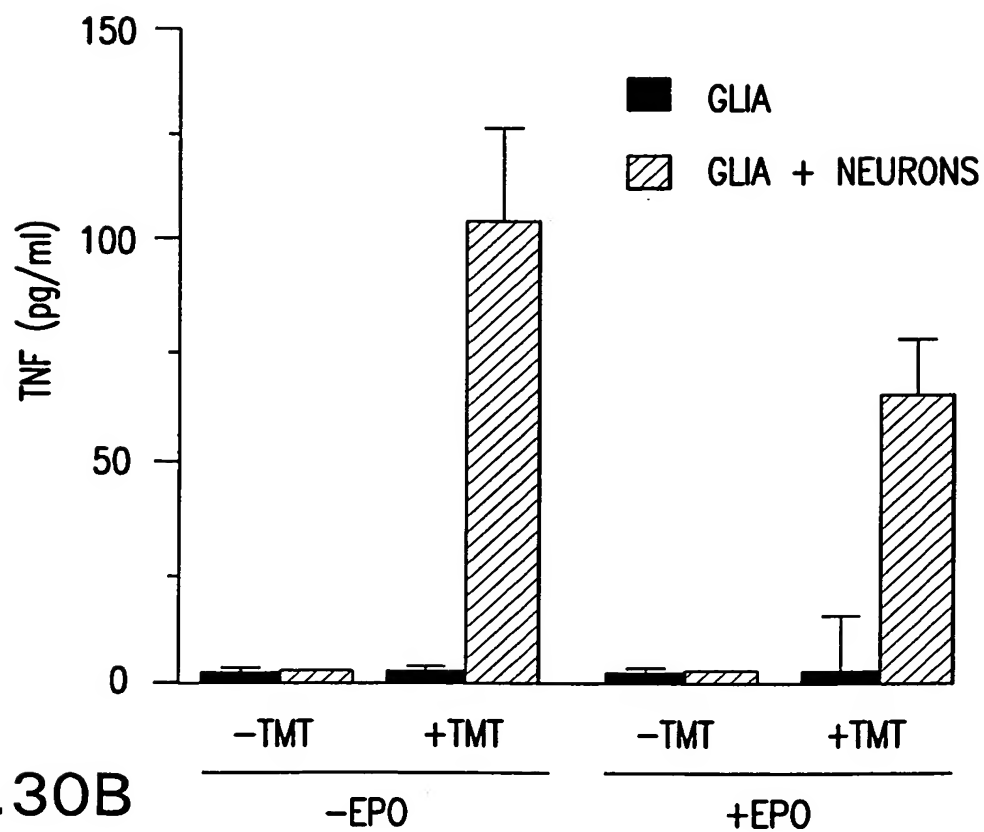


FIG.30B

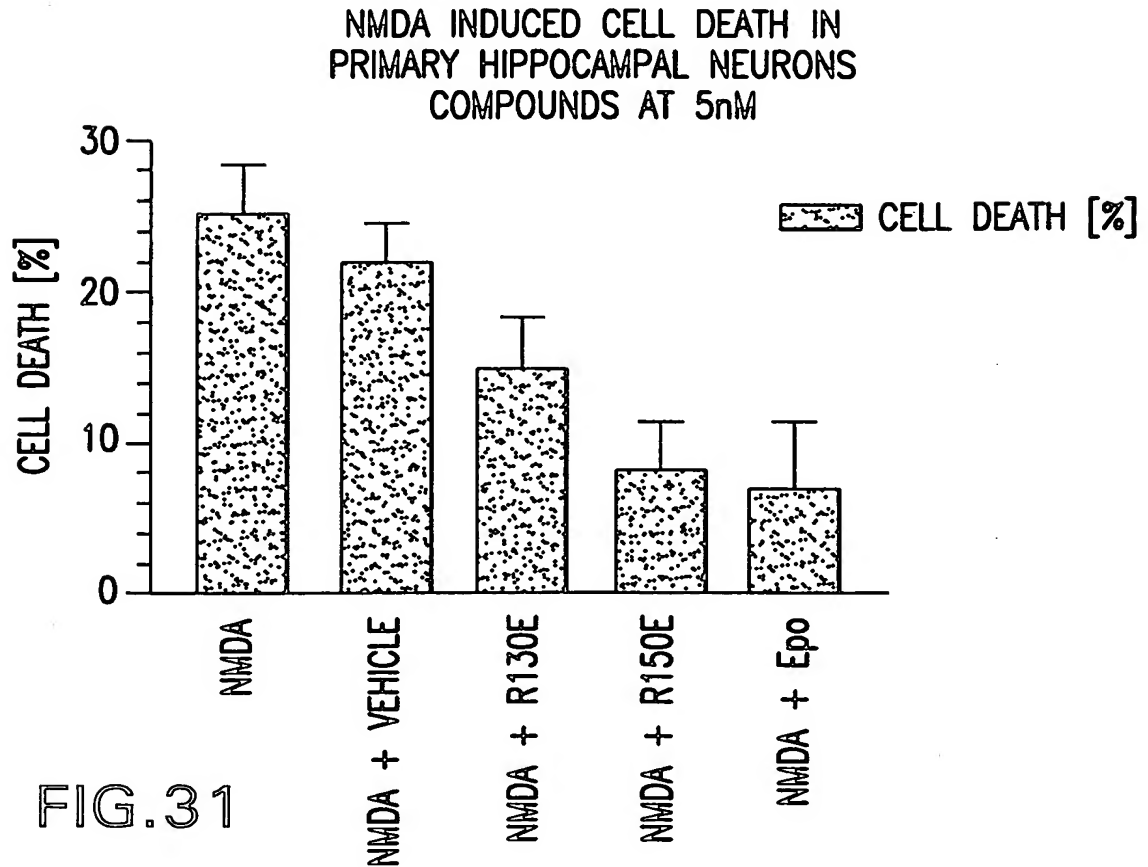


FIG.31

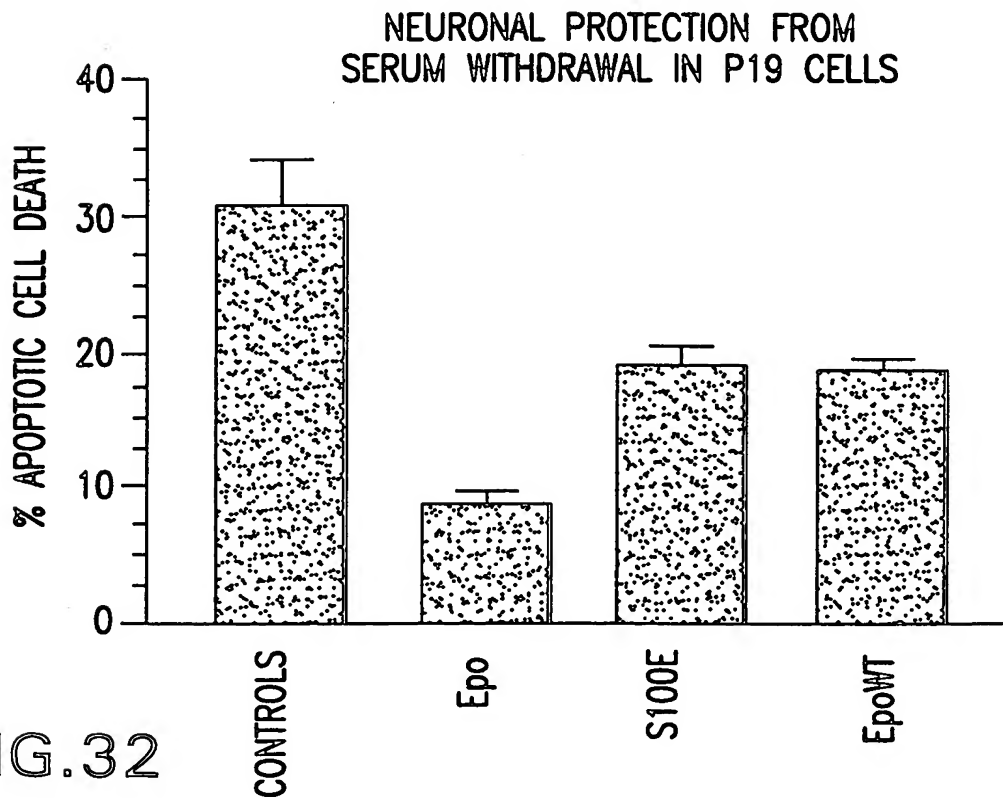


FIG.32

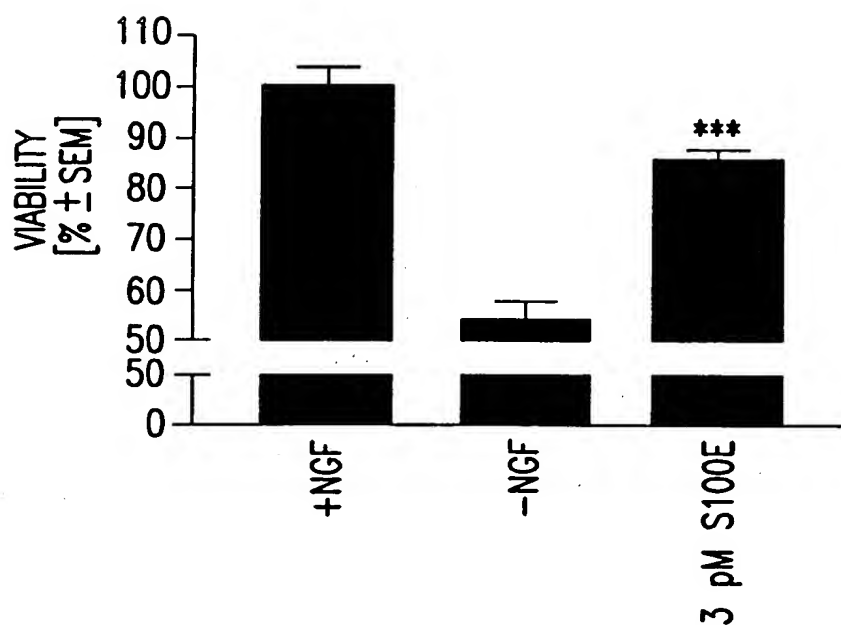


FIG.33A

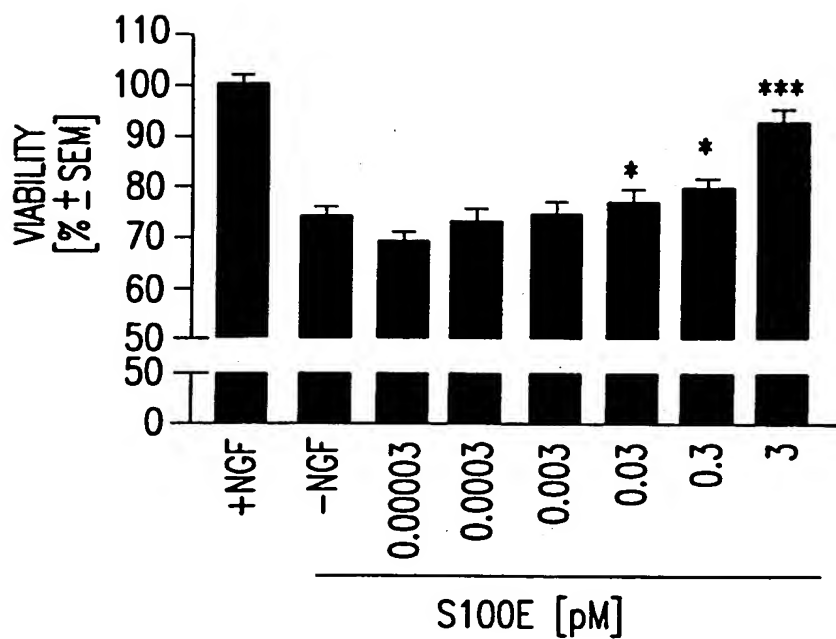


FIG.33B



Title: Recombinant tissue protective cytokines and  
encoding nucleic acids thereof for protection, restoration,  
and enhancement of responsive cells, tissues, and organs

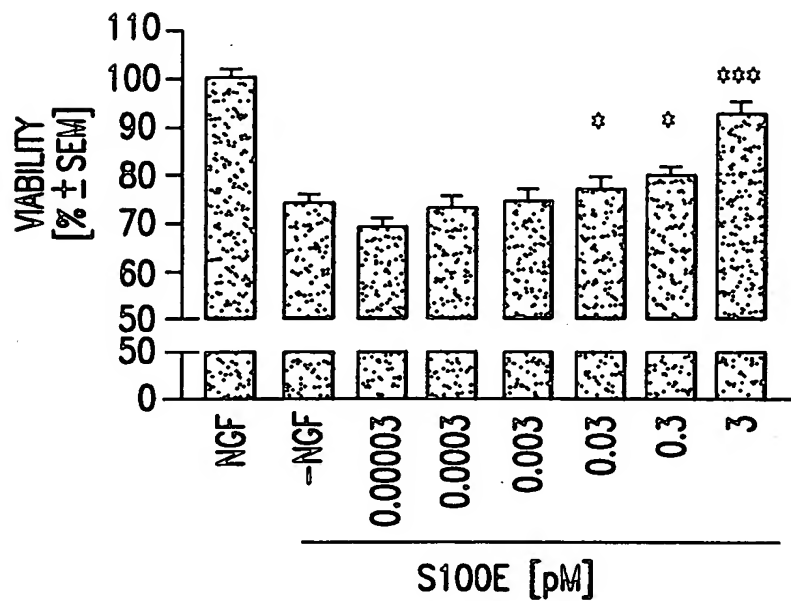


FIG.34A

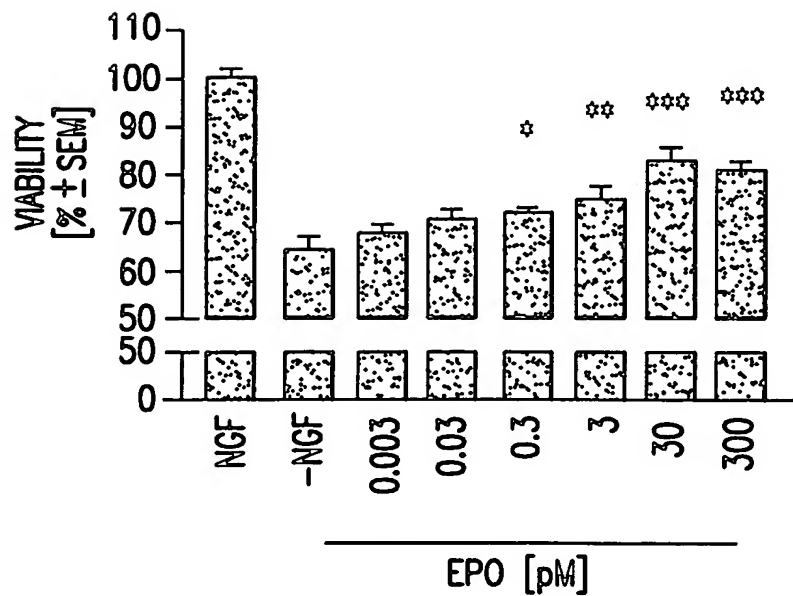


FIG.34B

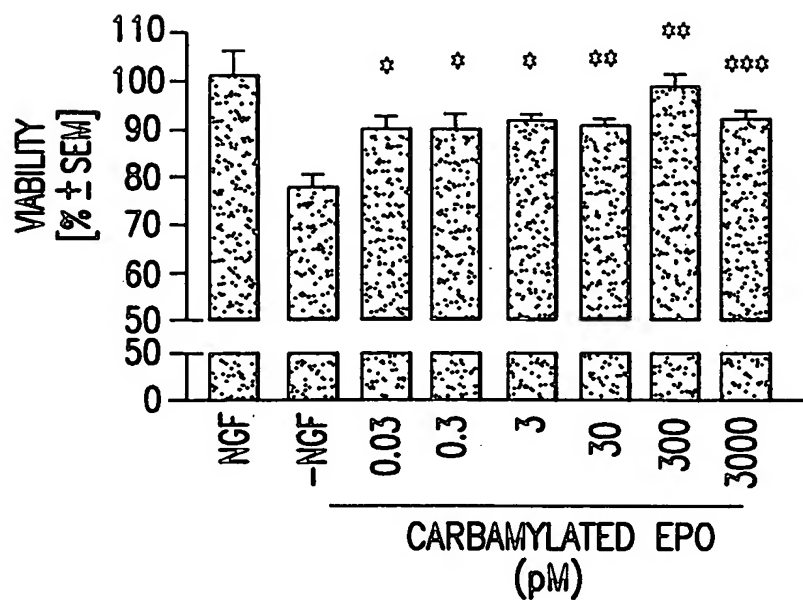
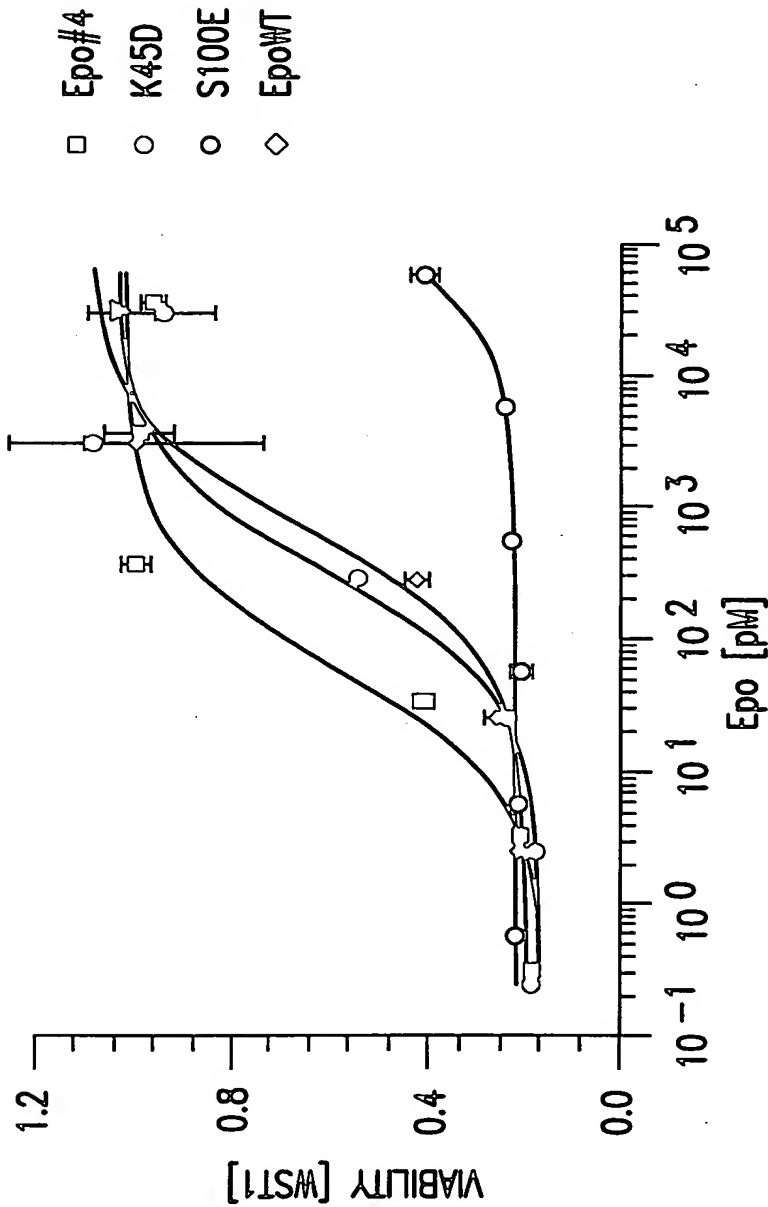


FIG. 34C

UT7 BIOASSAY  
Epo MUTANTS



	Epo#4	K45D	S100E	EpoWT
EC50	58.13	294.0	5.3840e+006	608.0

FIG. 35

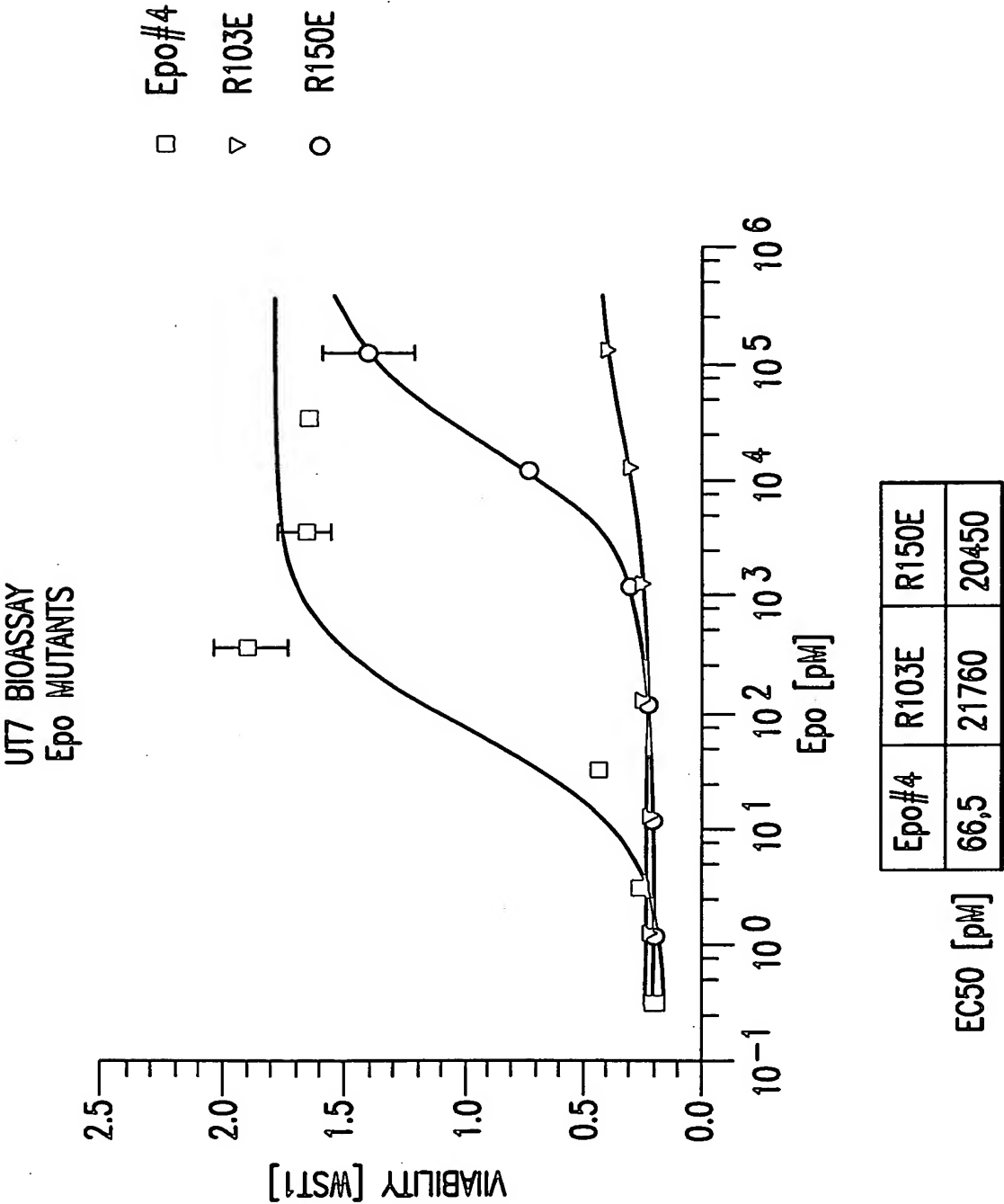


FIG.36

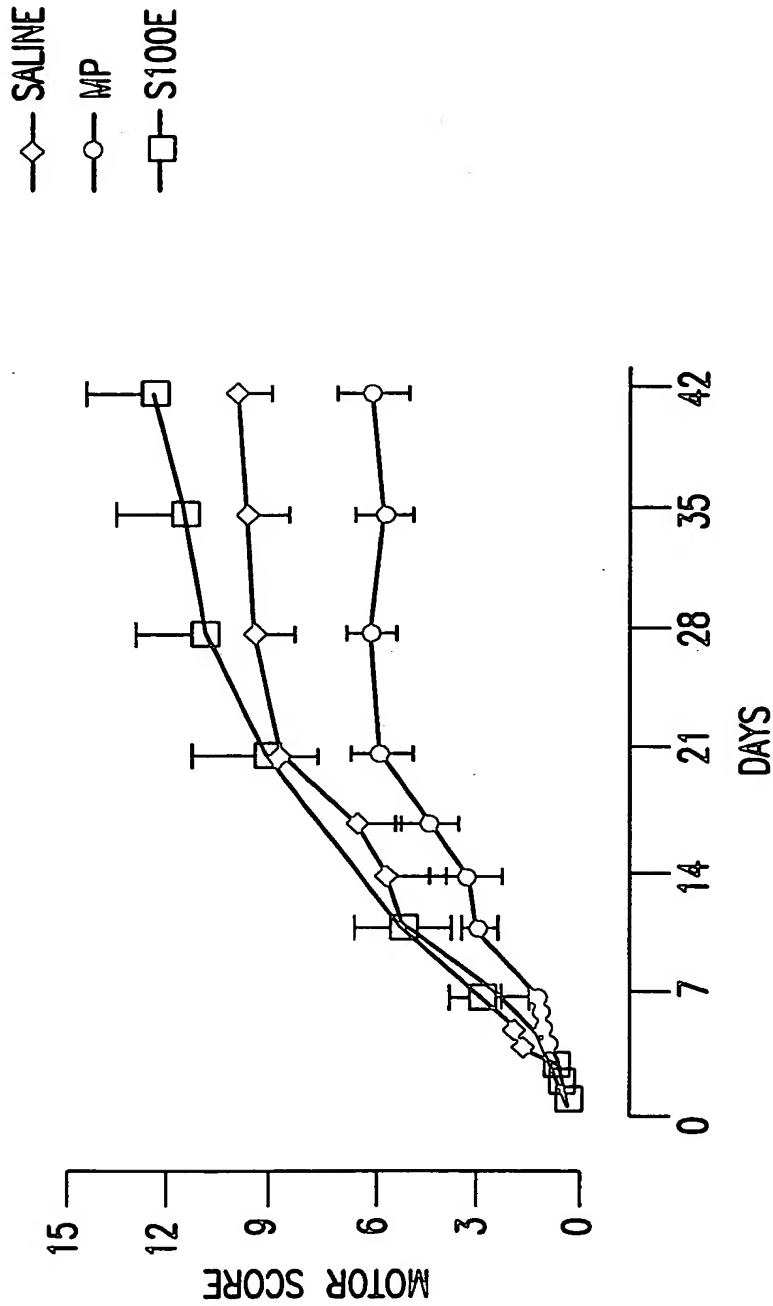


FIG.37

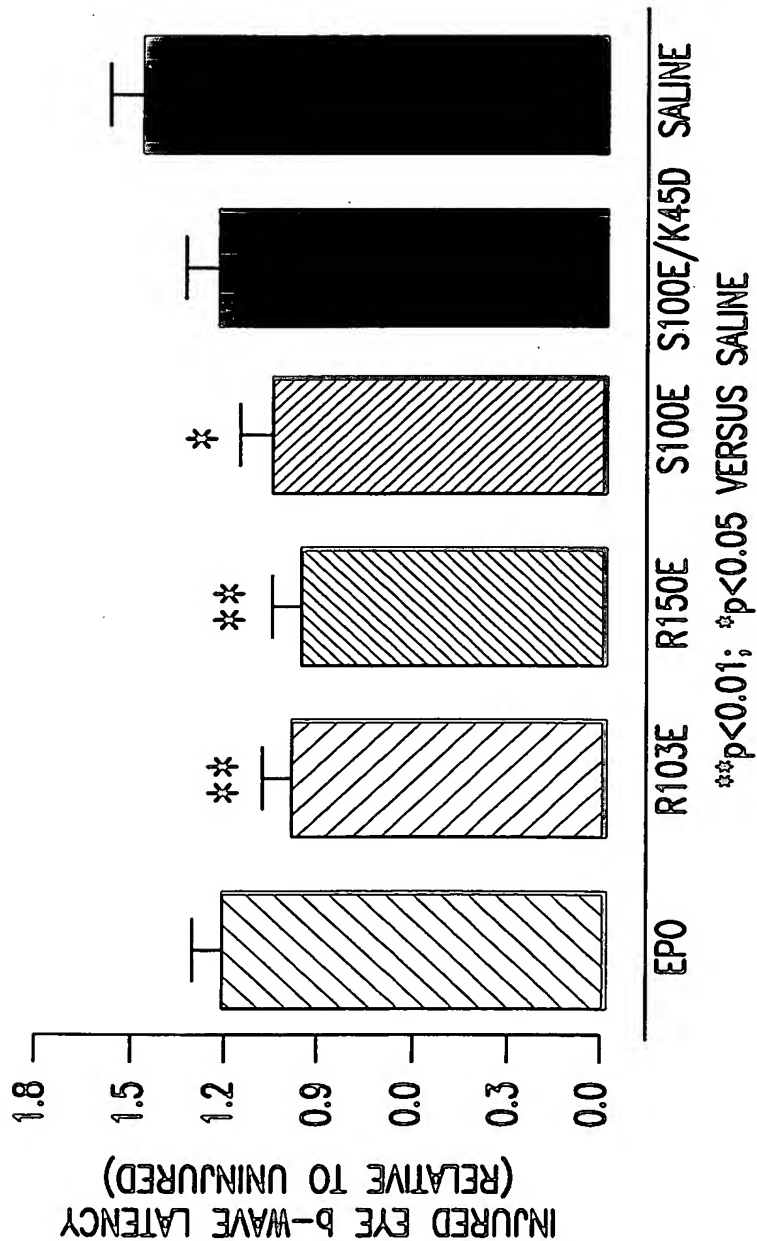


FIG.38